Supporting information for:

Valorization of bamboo biomass using combinatorial pretreatments

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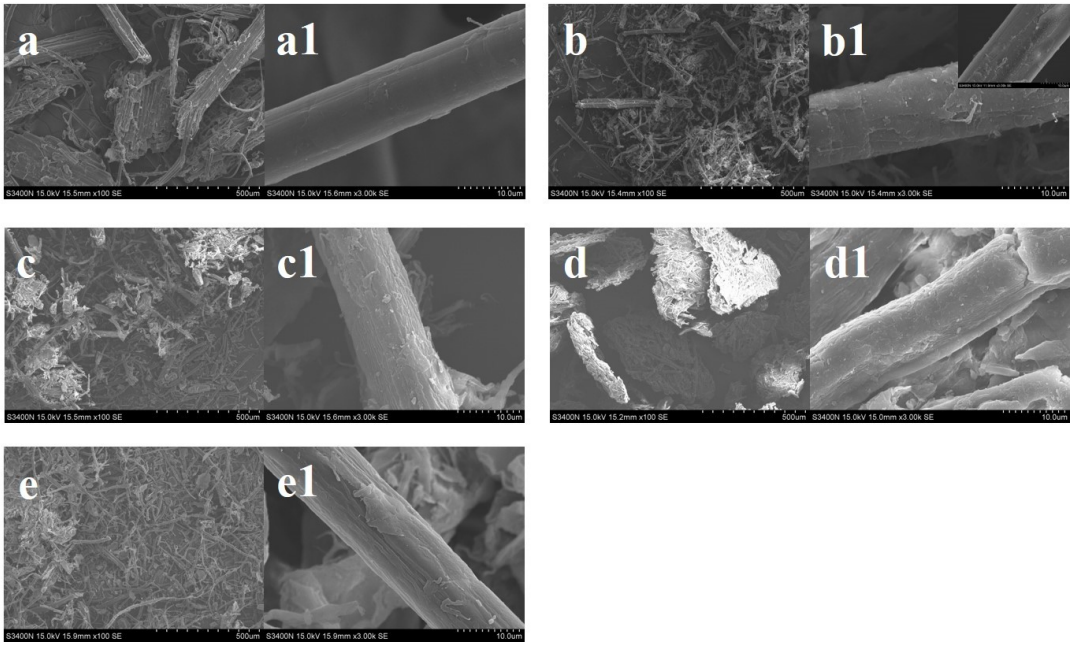

Fig. S1 Surface morphology of the raw and pretreated samples (a/a1: raw bamboo; b/b1: LHWP treated sample; c/c1: LHWP-BDO treated sample; d/d1: LHWP-DES treated sample; e/e1: LHWP-NaOH treated sample).

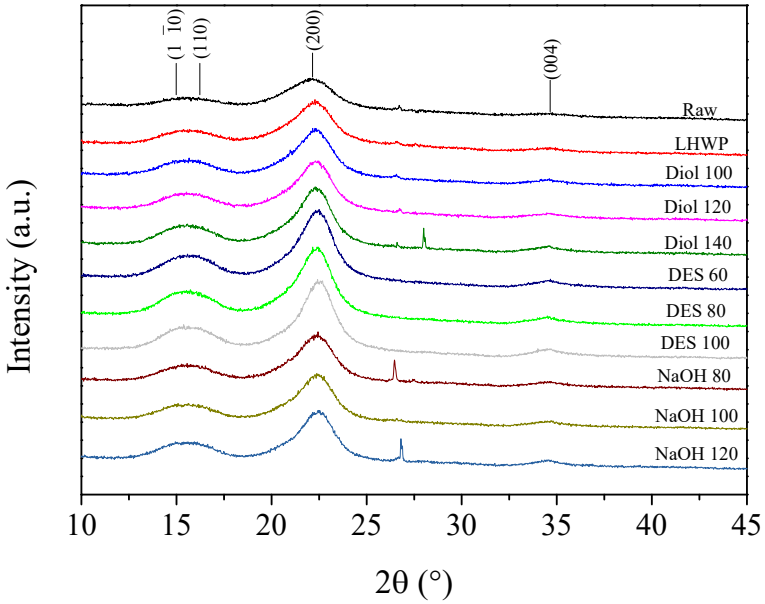

Fig. S2 XRD patterns of raw and pretreated samples.

Table S1 Peaks assignment for FTIR spectra.

Wavenumber (cm^{-1})	**Assignment**
3341	O-H stretching
2895	C-H stretching
1735	C=O ester; carbonyl groups in branched hemicellulose
1601	Aromatic ring stretching
1510	Aromatic ring vibration
1454	C-H methyl and methylene deformation
1422	C-H deformation (asymmetric) of cellulose
1375	C-H stretching of cellulose
1325	C-O vibration of syringyl
1239	C-O vibration of guaiacyl
1160	C-O-C asymmetrical stretching
1105	C-O vibrations of crystalline cellulose
896	β-glycosidic linkages in cellulose
834	aromatic C-H deformation

Table S2 Concentrations of the main byproducts in the prehydrolyzate of LHWP.

Severity	Formic acid (g/L)	Acetic acid (g/L)	Levulinic acid (g/L)	HMF (g/L)	Furfural (g/L)
2.2	0	0	0	0	0
2.8	0	0.21	0	0	0
3.4	0	0.45	0	0	0
3.7	0	0.87	0	0	0
4.0	0.52	1.08	0	0.05	1.50
4.1	0.55	1.25	0	0.07	1.68
4.3	0.60	1.63	0	0.13	2.06
4.4	0.60	1.96	0	0.24	2.36
4.5	0.79	2.43	0	0.52	3.23